



Thank you, communities and partners! Cleanup accomplishments for 2021

As 2021 draws to a close, we'd like to say a big "thank you" to everyone involved in and affected by the ongoing cleanup project. We're happy to report another year of successful work in the Basin. EPA and our partners continue to take Covid-19 safety precautions while completing our projects to protect people's health and the environment. Decisions about ongoing project work are made, first and foremost, to protect the health and safety of communities, EPA staff, partners, and contractors.

We appreciate the coordination of our many partners -- the Panhandle Health District, Idaho Department of Environmental Quality, the Basin Environmental Improvement Project Commission, Coeur d'Alene Tribe, local governments, other state and federal agencies, contractors, and many more! Particularly, we want to thank the local communities for your patience and cooperation. We know some of the cleanup activities have been disruptive. It's a big, long-term cleanup and there is still much work to be done. Activities completed this year include:

- Cleaning up a grand total of 7,164 residential and commercial properties sitewide to date, to reduce people's exposure to lead and other metals.
- Upgrading the Central Treatment Plant and installing a groundwater collection system. The upgraded plant is already successfully removing 99 percent of zinc in the influent and meeting current discharge criteria.
- Hauling about 40,000 cubic yards of mine waste from the Lower East Fork Ninemile riparian area. Crews disposed of the waste in the East Fork Ninemile Waste Consolidation Area.

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- Starting infrastructure improvements at Lamb Peak field at the Gray's Meadow project. When complete, the project will reduce lead contamination in the soil to levels that are safe for water birds.
- Hauling over 3,000 truckloads of contaminated waste to protectively engineered repositories. Less waste was hauled in 2021.
- Cleanup investigations at old mine and mill sites in the Upper CDA River Basin. These studies help us design effective cleanups.

**Learn More about the Coeur d'Alene Basin
Cleanup on the Web:** www.epa.gov/superfund/bunker-hill

Total of 7,164 local properties cleaned up to date

This year, the Coeur d'Alene Trust's Basin Property Remediation Program cleaned up two properties and sampled five. Property cleanups protect people's health by reducing exposure to lead and other harmful metals. Properties remaining to be sampled and/or cleaned up in the Upper and Lower Basin are those whose owners have refused access or have been unresponsive to repeated contact attempts. Currently, nine properties in the Bunker Hill Box require cleanup once owners grant access. In the Basin, 217 properties remain that require sampling or are estimated to require remediation once owners grant access. A total of 7,164 properties have been cleaned up sitewide to date! If you believe your property may be eligible and you'd like to have it sampled for mining-related metals, please see contacts below.

CONTACTS: **Andy Helkey**, IDEQ • 208-783-3052 or **Kyle Richards**, CDA Trust • 208-783-0222.

Update: Lower Basin waste consolidation areas

This summer, we completed soil sampling, surveying, well installation and monitoring, and geotechnical analyses at two Coeur d'Alene Trust-owned properties. The Dredge Road property is two miles west of Cataldo, on the north side of Interstate 90. The South River Road property is one mile east of the intersection of Highway 3 and South River Road. This work will help us evaluate how suitable the properties are for various future uses.

No decisions have been made yet for how the properties will be used. The Trust is often looking for properties from which to obtain soil, gravel, and larger rock, or as locations to dispose of contaminated materials in protectively engineered waste consolidation areas. The properties could also provide an area to keep equipment needed for future work. Properties such as these are essential to completing our cleanup projects.

WCAs are places where contaminated material — soil and sediments — is disposed of. The waste material would mostly come from nearby cleanup sites in the Lower Basin. When WCAs are full, they are capped with clean material, monitored, and maintained. WCAs are engineered and managed to contain the contamination safely over time. This reduces exposure and helps protect people and wildlife. EPA will consider all potential and available properties before selecting a location for a new WCA.

The upcoming test projects in the Dudley Reach area of the Coeur d'Alene River will require a WCA to place contaminated sediments and soils (see article below). The plan is to have the WCA located, designed, and constructed by 2024 to begin receiving sediment and soil waste.

Last year, we checked in with you on criteria, or important things to consider, when choosing a location for a WCA. See EPA's responses to public input in *Lower Basin Waste Consolidation Areas Siting Criteria: EPA Responsiveness Summary*: <https://go.usa.gov/xebFb>. Thank you again for your comments.

We will continue to keep you updated on our decisions for siting waste consolidation areas through email, mailings, and posts on our CDA Basin Facebook page and project webpage.

CONTACT: **Patrick Hickey**, EPA • hickey.patrick@epa.gov • 206-553-6295 • 800-424-4372 ext. 6295.



Equipment like this sonic drill rig was used for soil sampling.

Update: Dudley Reach Riverbed Project, Lower Basin

Planning and data collection is underway for the Dudley Reach riverbed pilot project. In October, the Coeur d'Alene Trust collected some pre-design data in the Dudley Reach area. Crews collected riverbed cores, and monitored riverbed and riverbank erosion pins throughout the Lower Basin. Additional riverbank pins were installed in select locations. A "pin" is a steel rod inserted in the riverbed or riverbank to measure erosion.

The project will address riverbed contamination. It is the first "pilot" project within the river channel in the Lower Basin. A pilot helps inform our cleanup approach. It will help us learn more about working in the river channel and assess ways to prevent mine waste from moving downstream, while we get some cleanup done.

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Update: Dudley Reach Riverbed Project, Lower Basin

We can apply those lessons to future efforts.

We have not yet set the exact location of the project. We are now focusing on a half-mile area about two miles downstream of the Mission Boat Ramp. The area includes a large scour hole on the river bottom with high levels of mining-related waste. During high runoff events, lead in the riverbed sediment in this area flows downstream. Metals contamination is widespread throughout the area. We are learning as much as we can about this site.

We are considering a dredging and capping approach for now. As we get new information, we may adjust our approach. Dredging will require waste consolidation areas be sited and built in the Lower Basin. We expect project design will take place in 2022 and 2023, and procurement and construction in 2024 and 2025.

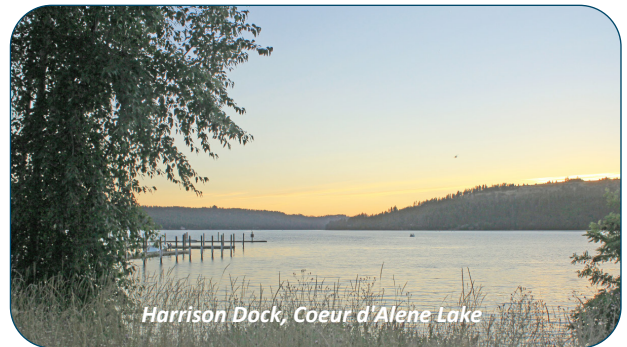
CONTACT: **Ed Moreen**, EPA • moreen.ed@epa.gov • 208-664-4588.

EPA presents to National Academies about cleanup

On July 19, EPA provided a briefing to the National Academies of Sciences to inform their study of Coeur d'Alene Lake. The NAS is working to form recommendations to address water quality concerns. EPA's presentation summarized the cleanup in the CDA Basin and Bunker Hill Box and previewed the planned work in the Lower Basin.

The NAS is continuing to collect and evaluate data. We look forward to the NAS recommendations as we all work for a cleaner, safer lake.

Visit the NAS study webpage at <https://bit.ly/3AABDPS>.



EPA Completes Five-Year Review: Coeur d'Alene Basin Cleanup

EPA recently completed its fifth Five-Year Review of the Bunker Hill Superfund site, also called the "Coeur d'Alene Basin Cleanup." The review checked to make sure the cleanup is protecting people's health and the environment. Overall, EPA found that cleanup actions are functioning as expected. The cleanup is protecting people's health and the environment in most locations where actions have been taken and is expected to meet all goals when completed in the future.



In some locations, lead measured in interior house dust and/or in children's blood was above cleanup goals. Potential source(s) of lead included residential yards not yet cleaned up, older homes being remodeled, and the occupations and recreational activities of residents. The 2020 Five-Year Review Report recommends follow-up actions to continue identifying people who are at risk from lead contamination, and to implement actions to reduce those risks.

In January 2020, we invited you to share information about the site that could help with this review. In response to several requests, we extended our public input period through April 30, 2020. Thank you to everyone who provided input. EPA received over 400 emails and letters. Most of these expressed concern about Lake Coeur d'Alene and its water quality, and requested EPA conduct a Remedial Investigation and select a remedy for the lake. As a remedy has not yet been selected for Lake Coeur d'Alene, an evaluation of its performance was not conducted as part of this Five-Year Review. However, a summary of lake-related activities conducted since the 2015 Five-Year Review is included in the 2020 Five-Year Review Report appendix. Find copies of the 2020 Five-Year Review report at select local libraries and online now at: www.epa.gov/superfund/bunker-hill.

Bunker Hill Five-Year Review Report: <https://go.usa.gov/xDn5>.

CONTACT: **Tamara Langton**, EPA • langton.tamara@epa.gov • 206-553-2709 • 800-424-4372, ext. 2709.

Construction complete: Bunker Hill Central Treatment Plant and groundwater collection system

After more than 4 ½ years of design, construction and testing, EPA and the U.S. Army Corps of Engineers finished upgrading the Central Treatment Plant and installing a groundwater collection system. The groundwater collection system is designed to capture the single highest source of metals-impacted water to the South Fork Coeur d'Alene River. The upgraded CTP will improve treatment of acid mine drainage coming from the Bunker Hill Mine and from the groundwater collection system. Recent monitoring indicates that the upgraded CTP is already successfully removing 99 percent of zinc in the influent and meeting current discharge criteria. The project will improve water quality in the river and is an important addition to the Coeur d'Alene Basin Cleanup.



Strong partnerships with the Army Corps, contractors, and the Idaho Department of Environmental Quality were essential to completing this large, complex project. The project was conducted under an innovative operate/design/build/operate contract. A temporary treatment plant was constructed so acid mine drainage from the Bunker Hill Mine could be treated while the old CTP was demolished and replaced. The entire project is operated using a computerized maintenance and management system, and has power generators in case there are grid power outages. The groundwater collection system includes a new sub-surface cut-off wall (8,000 linear feet) and wells that capture contaminated groundwater. About 1,100 tons of bentonite were used in wall construction. The upgraded CTP includes:

- A mixing basin that mixes reagents with the influent to remove dissolved metals;
- A filter bank to polish the treated waters prior to discharge;
- And a 14-acre impoundment area, the final repository for metals and sludge removed from the treated waters.

In late October, IDEQ took over operations and maintenance, using funds provided from a past HECLA settlement.

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Kim Prestbo, EPA • prestbo.kim@epa.gov • 206-553-0239 • 800-424-4372, ext. 0239.

Gray's Meadow agriculture to wetland conversion project will provide safe bird habitat

At Gray's Meadow, construction crews began infrastructure improvements at the Lamb Peak field in mid-October. The work is part of a project to convert agricultural land to healthy wetlands. When complete, the project will reduce lead contamination in the soil to levels that are safe for water birds.

The Lamb Peak project will relocate the pumps and pumphouse closer to the Coeur d'Alene River and mouth of the Black Lake tie channel. The pump discharge will be relocated to a channel next to the Trail of the Coeur d'Alenes, which conveys water to the river. A new gravity drain water control structure will be installed for use during low river water conditions and will discharge to the Black Lake tie channel. During the first week, our contractor started clearing and grubbing activities. They also installed a silt fence along the tie channel to prepare for installation of a temporary access bridge. Ultimately, the current bridge that spans the tie channel will be replaced with a new bridge.



Temporary silt fence along the Black Lake Tie Channel.

If you are riding along the trail or visiting nearby trailheads, you may notice new signs advising you of our work in the area. The trail will remain open during the project, with detours being set up during activities that impact the trail and trail users. We expect the Lamb Peak project will be completed in December 2021. Relocation of the Cave Lake pump discharge was completed in May 2021. The 60 percent design package for the project is now under EPA and stakeholder review. Remediation and restoration construction will start in 2022 and be completed in 2024.

CONTACT: **Kim Prestbo**, EPA • prestbo.kim@epa.gov • 206-553-0239 • 800-424-4372, ext. 0239.

Upper Basin cleanup: 2021 activities

This year, we continued cleanups and investigations in the Upper Coeur d'Alene River Basin to address metals-contaminated materials from old mine and mill sites. The work prevents the contaminants from washing downstream, reducing exposures for people and wildlife, and improving water quality. The Coeur d'Alene Trust performed the work, under EPA's direction.

Ninemile Basin

We completed several cleanup activities in Ninemile Basin, northeast of Wallace. In October, crews finished hauling about 40,000 cubic yards of mine waste from the upper portion of the Lower East Fork Ninemile riparian area. The waste was disposed of in the East Fork Ninemile Waste Consolidation Area, near the top of East Fork Ninemile Canyon. Work was completed last year to add about 500,000 cubic yards of additional capacity to its footprint, so that it can take in wastes from remaining Ninemile Basin cleanups. Groundwater and surface water sampling also continued at the waste consolidation area this year.



Lower East Fork Ninemile riparian area.

In addition, we started an investigation in the lower portion of the Lower East Fork Ninemile riparian area. Crews collected soil and sediment samples. The investigation will help us understand how much and what types of contamination exist at this location. It will determine the need for a cleanup design that protects people and wildlife, and improves water quality.

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Canyon Creek Basin

Construction continued at the Canyon Complex Repository/Waste Consolidation Area in the Canyon Creek Basin. This area is next to the old, failing "Silver Valley Natural Resource Trustees Repository." This year, about 550,000 cubic yards of mine waste was moved from the old repository to the new CCR/WCA. The Trust also continued excavation and rock sorting at the quarry, located 2.7 miles to the east. It supplies clean construction materials, gravel, and road surfacing materials for this and other cleanup projects in the Canyon Creek Basin. A new drainage system will be expanded into the old SVNRT repository area in 2022. In 2023, the facility will be ready to take in waste from other Canyon Creek area mine and mill site cleanups. When finished, the new CCR/WCA will be able to hold about 1.8 million cubic yards. Facilities like this one reduce health risks from metals like lead and arsenic.



Crews place waste in the CCR/WCA footprint.

Work crews also started investigations at six new projects: Gem Complex, Standard Mammoth Reach, Ajax No. 3, Canyon Creek Garbage Dump, Marsh Mine, and Oneill Gulch Unnamed Rock Dump. Crews drilled borings and monitoring wells, dug test pits, and collected soil, surface water, and groundwater samples.

Two other cleanup investigations continued this year: Tamarack Mine No. 7 and Black Bear Fraction/Flynn Mine. At Tamarack Mine No. 7, test pits were dug to confirm the location of underground utilities. At Black Bear Fraction/Flynn Mine, crews drilled borings and monitoring wells, and collected soil, surface water, and groundwater samples.

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EPA worked closely with the CDA Trust to incorporate up-to-date guidance on reducing the risk of contracting COVID-19 during site work.

Upper Basin Cleanup
Continued ➡

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Upper Basin cleanup: 2021 activities

Pine Creek Basin

Crews completed the required surface and groundwater sampling needed before cleanup begins at the old Douglas Mine and Mill Site. We expect the cleanup design will be completed before the end of 2021. Cleanup is scheduled to begin in 2023 and wrap up before the end of that year. The Douglas Mine and Mill Site is located along the East Fork of Pine Creek, south of Pinehurst.

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Truckloads to repositories: less waste moved in 2021

This year saw a substantial reduction in waste hauling through the Silver Valley. Completing the paved roads and remedy protection programs helped drive the decrease in waste. The contaminated soils hauled to the repositories came from places where they posed a risk to people and the environment. As we get closer to the end of the year, crews are making sure the repositories remain secure during the winter months. Lower Burke Canyon Repository may see a little more waste before it is closed for the season, likely from utility repairs. Page Repository will still receive waste throughout the year. EPA appreciates our partners, the work crews, and the local communities for your support and patience as we conduct this cleanup to protect public health. Very grateful for the cooperation!

How many loads of material did each repository receive?

- East Mission Flats Repository: 221 - about 1,880 cubic yards
- Big Creek Repository: 201 - about 1,170 cubic yards
- Big Creek Repository Annex: 49 - about 420 cubic yards
- Lower Burke Canyon Repository: about 920 - about 7,820 cubic yards
- Page Repository: about 1,630 truckloads to date - about 13,900 cubic yards



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Comings and goings

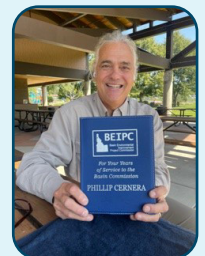
A warm farewell and best wishes to Val Wade

A big thank you to Val Wade, Panhandle Health District's Outreach Coordinator, as the CDA Basin Cleanup team bids her a warm farewell. Val worked for nearly six years to protect public health in the community she calls home: the Silver Valley. She has been instrumental in educating both children and adults on ways to reduce exposure to lead, distributing important information about the ongoing cleanup in the area, and building partnerships across the spectrum of interests. The benefits of her efforts and commitment will be felt for years to come. Thank you, Val, for your massive contributions. We can't wait to see what you will do next!



Congratulations, Phillip Cernera!

In September, Phillip retired from his 30 years of service to the Coeur d'Alene Tribe Lake Management Department and 19 years with the Coeur d'Alene Basin Environmental Improvement Project Commission. Phillip was one of the original members of the Technical Leadership Group when the BEIPC was created by the Idaho State Legislature in 2002. He was then appointed by the Tribal Council to serve as the tribe's representative on the BEIPC Board in 2005. Phillip's passion and involvement on the BEIPC Board will be missed! Thank you for your years of service, Phillip.



Comings and Goings – Continued ⇒

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Comings and Goings**Welcome, Gene H. James!**

A hearty welcome to Gene H. “Hemene” James, the new Coeur d’Alene Tribe representative on the BEIPC Board. Hemene is a member of the tribe and serves as Tribal Councilman for the tribe’s government, where he is currently the Secretary-Treasurer. Prior to being elected on Tribal Council, Hemene worked for the tribe’s natural resources through its Fisheries Program. Hemene is a leader for the tribal community and was recently selected by Idaho Governor Little to serve on the Coeur d’Alene Lake Advisory Committee.

**To Find Documents****North Idaho College Library**

Molstead Library
1000 Garden Avenue – Coeur d’Alene, ID 83814
208-769-3355

Wallace Public Library

415 River Street – Wallace, ID 83873
208-752-4571

Spokane Public Library

906 West Main Avenue – Spokane, WA 99201
509-444-5336

EPA Field Office

1910 Northwest Boulevard, Suite 210
Coeur d’Alene, ID 83814
208-664-4588

St. Maries Library

822 W. College Avenue – St. Maries, ID 83861
208-245-3732

Kellogg Public Library

16 West Market Avenue – Kellogg, ID 83837
208-786-7231

The Basin Bulletin is published by the U.S. Environmental Protection Agency three times a year. The Basin Bulletin offers updates on the Superfund cleanup in the Coeur d’Alene Basin. For mailing list changes, to send comments on this newsletter, contact the editors, or submit articles for consideration, contact Debra Sherbina as noted. Mention of trade names, products, or services does not convey, and should not be interpreted as conveying, official EPA approval, endorsement, or recommendation.

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Visit us on Facebook!**

One of the best ways to stay up-to-date on the cleanup work is to sign up for our Facebook page. Watch for two or three short posts a week. We invite you to check it out!

📞 <https://www.facebook.com/CDAbasin>

**Opportunities to
Get Involved****Basin Environmental Improvement Project
Commission (BEIPC)**

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<http://www.basincommission.com>**Citizens Coordinating Council (CCC)**

CHAIR:

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<http://www.basincommission.com/cc>**EPA Community
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Alternative formats are available.

📞 If you need materials in an alternative format, please call Debra Sherbina • 206-553-0247.



BASIN BULLETIN

Updates on the Coeur d'Alene Basin Cleanup

November 2021

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